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(21) Application number: **2001244473**(22) Date of filing: **10.08.01**(71) Applicant: **NEC CORP**(72) Inventor: **ISHIYAMA RUI****(54) DEVICE, METHOD AND PROGRAM FOR RECOGNIZING POSITIONING ATTITUDE****(57) Abstract:**

PROBLEM TO BE SOLVED: To provide a positioning attitude recognizing device for finding a right positioning attitude even when there is no clear feature in the positioning attitude of an object in a recognition target image, fluctuation of illumination conditions or shape or color of the object or when a feature point or position of the feature point can not be exactly and sufficiently extracted from the image of the recognition target.

SOLUTION: The device is composed of a registration part 10 equipped with a three- dimensional (3D) form/reflection factor measuring part 11, illumination fluctuation texture generating part 12 for generating base texture, base texture calculating part 13, object model storage part 14 for storing a 3D object model and a base texture group, and a recognition part 20 equipped with an illumination fluctuation space generating part 21 for inputting an initial attitude candidate group, reading the 3D object model from the object model storage part 14 and generating the illumination fluctuation space of the image of an applied attitude candidate, a compare image generating part 22 for generating a compare image most approximate to the image of a recognition target by using each of

illumination fluctuation spaces, and an attitude selecting part 23 for selecting a compare image most approximate to the image of the recognition target out of the compare image group and outputting that image as an optimal attitude candidate.

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